Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1-110. (Canceled)

111. (Currently Amended) A method by which a client connected to a data repository over a lower speed network connection may provide higher speed access to a data item for application processing by an application server than is possible over the relatively low speed connection to the network, the method comprising:

determining a digital fingerprint of the data item;

testing for whether the data item is already stored in [a] the repository by comparing the digital fingerprint of the data item to digital fingerprints of data items already in the repository;

only if the data item is not already stored in the repository, transferring the data item over the lower speed connection from the client to the repository;

assigning an expiration time to the data item, before which time both modification and deletion are prohibited;

making a higher speed connection between [an] the application server and the data repository;

executing an application on the application server to process the data item stored [on] in the data repository; and

returning at least some of the processed data a result of the executing step to the client across the lower speed connection;

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wherein the client reassigns the expiration time to a later time but no action taken by the client can cause the expiration time to be changed to an earlier time or cause the data item to be deleted at an earlier time than the expiration time; and

wherein after the expiration time has passed deletion of the data item is allowed.

112. (Previously Presented) The method of claim 111 in which the data repository comprises a plurality of storage sites and rules governing expiration and deletion are distributed to the plurality of storage sites as part of the process of storing data items.

113. (Currently Amended) The method of claim 111 in which the expiration time initially assigned to the data item depends upon an expiration time assigned by the client.

114-165. (Canceled)

167. (Previously Presented) The method of claim 111 in which the data repository is a disk-based data storage system.

168. (Previously Presented) The method of claim 111 in which the application server is separate from and independent of the data repository, and is connected to it by the network.

169. (Previously Presented) The method of claim 111 in which the digital fingerprint is a cryptographic hash of the content of the data item.

170. (Previously Presented) The method of claim 111 in which the data item is encrypted using a key based on the content of the data item.

171. (Currently Amended) The method of claim 111 in which the processed-data result of the executing step is returned to the client via a Web browser.

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172. (Previously Presented) The method of claim 111 in which the client has a plurality of data items stored in the data repository and the client controls which of the plurality of data items the application server is allowed to access.

173. (Currently Amended) The method of claim 172 in which the client is a program running on a computer and the plurality of data items are copies of data items that reside in the storage of the computer, and the application server diagnoses detects a problem in the configuration of the computer, based on the plurality of data items.

174. (New) The method of claim 111 in which the client ensures that the data item is stored in the data repository in order to provide an archival record of data stored on a storage device that is local to the client.

175. (New) The method of claim 174 in which the data item is time stamped in a manner that allows both its contents and the time it was created to be proven.

176. (New) The method of claim 111 in which, after the expiration time has passed, the client deletes the data item.

177. (New) The method of claim 111 in which the data item is communicated to a client via a Web browser.